

The background of the advertisement is a blue-tinted photograph of a city skyline at night, with various buildings and lights visible. The word 'Renovator' is written in large, white, 3D block letters across the middle. Above it, the tagline 'On Cost, On Schedule, Built for the Next 50 Years...' is written in a smaller, white, sans-serif font.

On Cost, On Schedule, Built for the Next 50 Years...

# Renovator

***A Newsletter from the Pentagon Renovation & Construction Program Office***

November 2007

## Wedge 2-5 Renovations Continue

### THE CONSTRUCTION PROCESS AT A GLANCE

As the renovations continue in the Pentagon, it's time again to highlight what the Pentagon Renovation and Construction Program Office (PENREN) face to complete such a massive endeavor. With approximately 4 million square feet of space, the design-build renovation of Wedges 2-5 includes the removal of all hazardous materials, replacement of all building systems, addition of new elevators and escalators to improve vertical circulation, and installation of new security and telecommunications systems. Additionally, sustainable design measures and force protection initiatives prompted by the September 11, 2001 terrorist attack have been successfully integrated into the design.

When you need to move the approximately 20,000 people who occupy Wedges 2-5, with around 5,000 tenants to be coordinated and re-located during each phase, you are going to face a variety of challenges. Some of these include the integration of changing requirements (primarily telecommunications and force protection upgrades), tenant requirements gathering, and coordination of project turnover and tenant relocations.

In order to help complete the renovation of the Pentagon four years earlier than previously anticipated, the wedges were put on a short interval construction schedule (SIPS). Each wedge was divided into areas of approximately 10,000 square feet, where every individual trade is allowed five days to complete their particular task before moving on to the next 10,000 square foot area. The sprinkler mains are installed first, followed by additional plumbing work, the HVAC installation, then electrical work, etc. The first area is completed in 26 weeks with the remaining areas following every week thereafter.

Another way PENREN supplements the aggressive schedule is through the Universal Space



PENREN is charged with transforming the 64-year old headquarters of the U.S. military into a modern, flexible and efficient work environment. PENREN's core mission is to provide the Pentagon Reservation with optimum Facilities and Information Technology through renovation, construction, and modernization. PENREN's award-winning acquisition approach and program management strategy have led to successful completion of several projects in addition to the original renovation work.



# INSIDE

## Project Updates and Photos

**CONTINUED ON PAGE 4**



# PENTAGON RENOVATION PROJECT WATCH

*Images and Updates on Pentagon Renovation & Construction Projects*

## Pentagon Memorial Project



PENREN manages the design and construction effort for the Pentagon Memorial. The Memorial will commemorate the 184 lives lost at the Pentagon and on board Flight 77 on September 11, 2001.

Construction continues on the Pentagon Memorial. Currently, there are 115 basins on site, and most have been set into place. Additionally, 60 Memorial Units have been fabricated in the metal mold at the foundry in St. Louis, Missouri, and 12 of those units have been sent to Chicago for the final polishing. The foundry in St. Louis is now on schedule, shipping 4 Memorial Units per week to Chicago.

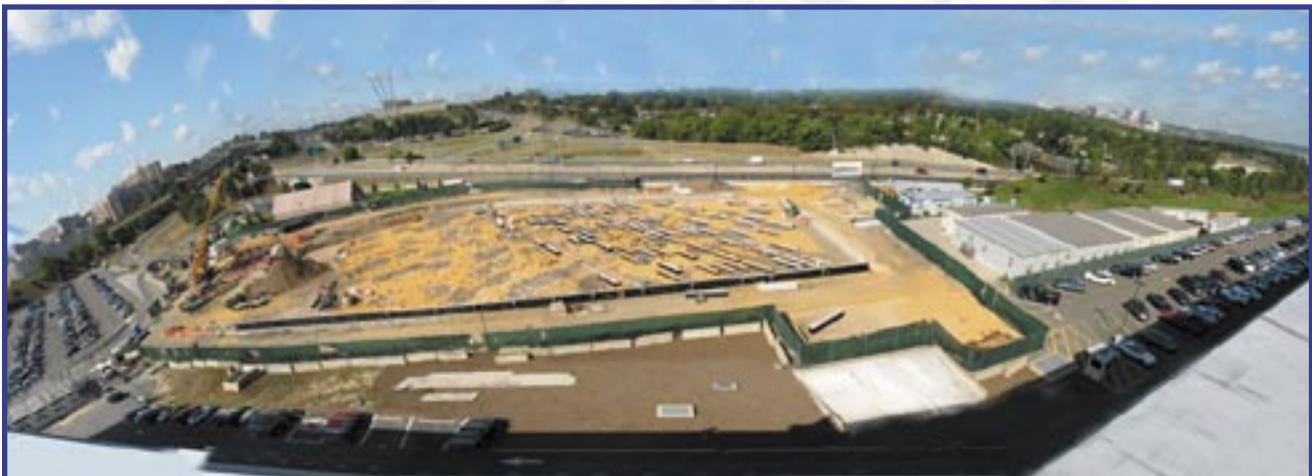
Starting in the spring Of 2008, the Memorial Units will be crated and shipped to the Pentagon. The completion of basin installation is expected to be the end of this year, while the top casts will begin to be installed in the Spring of 2008.



A mock-up of the Age Line on the Age Wall surrounding the park.



Laying the concrete basins on the Memorial site.



A panoramic view of the Memorial park.





## PENTAGON RENOVATION PROJECT WATCH (cont.)

### Center Courtyard Café

PENREN is rebuilding the historic Center Courtyard Café into a year-round, all-weather facility, featuring restrooms and an indoor seating capacity of around 60.

Construction of the Center Courtyard Café is progressing. Currently, with the installation of drywall, Pentagon employees are able to see the exterior of the building where they will soon be able to enjoy year-round food service. The mechanical and electrical rough-in is 80% complete, while the utility work in the trench is scheduled to be completed soon.

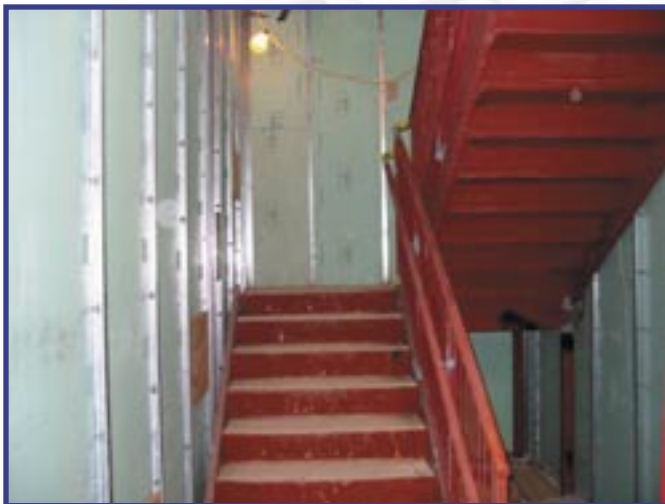
Looking ahead, the roof slate and kitchen equipment will be installed this month, and the Corridor 7-8 sidewalk will be finished. The Café is still scheduled to be completed at the end of November, with an opening date in December.



The exterior of the CCY Café.



A close-up view of the exterior of the CCY Café.



Stairway leading to second floor utility room of the CCY Café.



A view of the construction on the interior of the CCY Café.



## Wedge 2-5 Renovations Continue

CONTINUED FROM PAGE 1



River Terrace Lobby Construction

sideration. Some features from the Wedge 2 renovation included: 90 percent of all concrete and metal were diverted from landfills, high efficiency lights requiring less lumens, recycled gypsum wall board, and highly sustainable recycled-content carpet.

The renovation of Wedges 2-5 is being accomplished in four major increments, wedge by wedge, each of which has been sub-phased to accommodate the accelerated schedule: Wedge 2 was completed in December 2005, and Wedge 3 construction will be finished in November of this year, while 3,000-plus tenants will be moving into Wedge 3.2 this month. With all of the hurdles PENREN must face to complete such an immense undertaking, they make sure the Pentagon renovations continue to be "On Cost, On Schedule, and Built for the Next 50 Years."

Plan (USP). Under the USP, Pentagon offices are constructed as generically as possible with a very robust infrastructure in order to accommodate all standard DoD office configurations. The offices are built using open office bays, enhanced natural lighting, and "smart walls," which are permanently constructed walls that provide a rigid yet easily reconfigured space.

Composed of designers, constructors and experts in sustainable construction initiatives and environmentally preferred products, the Wedges 2-5 design-build team is also using an integrated sustainable design and construction approach that evaluates design decisions in a holistic framework. Sustainable design includes not only environmental considerations, but how environment integrates with cost, schedule, operations, maintenance, and worker/employee con-



New Corridor 8 Escalators

### WE WANT YOUR FEEDBACK!

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ON COST, ON SCHEDULE, BUILT FOR THE NEXT 50

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